*Int J Biomed Comput*, 24 (1989) 305—306
Elsevier Scientific Publishers Ireland Ltd.



## CONTENTS

Volume 24 (1989)

Commentary ..... 1—7
Computer viruses
Software for molecular modeling
J.G. Llaurado (U.S.A.)

*Review Article*
Computer-aided decision support in clinical medicine
F.T. de Dombal (Leeds, U.K.) ..... 9—16

A comparison between different models of the relation between recorded intradental nerve impulse activity and reported pain in man
U.G.H. Fors, H.H. Sandberg, L.G.A. Edwall and G.A.T. Haegerstam (Huddinge, Sweden) ..... 17—28
A least squares algorithm to determine the mechanical time constant distribution of the lung during forced expiration
M. Rotger, D. Navajas and R. Farre (Barcelona, Spain) ..... 29—40
A simulation support system for solving large physiological models on microcomputers
J.-P. Montani, T.H. Adair, R.L. Summers, T.G. Coleman and A.C. Guyton (Jackson, MS) ..... 41—54
A program for simulation of nerve equations with branching geometries
M. Hines (Durham, NC) ..... 55—68
Calendar of Events ..... 69—70

Publishers note ..... 71
Commentary ..... 73—78
Spontaneous abortion and visual display terminals (VDTs)
Validity of lie detectors
J.G. Llaurado (U.S.A.)
Evaluation of renal functions — a computer programme
A. Kazda, A. Jabor and M. Zámecník (Prague and Kladno, Czechoslovakia) ..... 79—87
Long-term spectral analysis of heart rate variability — an algorithm based on segmental frequency distributions of beat-to-beat intervals
M. Malik, T. Cripps, T. Farrell and A.J. Camm (London, UK) ..... 89—110
Automatic speech recognition — can it improve the man-machine interface in medical expert systems?
J.A. Landau, K.H. Norwich and S.J. Evans (Toronto, Canada) ..... 111—117
Computer simulation for teaching membrane potential fundamentals
E. Soto (Puebla, Mexico) ..... 119—126
Online coverage of the literature on thermal physiology
R. Refinetti (Santa Barbara, CA) ..... 127—131
A model-based system to determine the relative value of different variables in a diagnostic system using Bayes theorem
T. Chard and E.M. Rubenstein (London, UK) ..... 133—142
Calendar of Events ..... 143—145

Commentary ..... 147—152
Cardiointegraphy: A new method for diagnosing coronary artery disease?
Computerization motion analysis: from Olympic walking to patient's progress quantitation
J.G. Llaurado (U.S.A.)
Evaluation and optimization of diagnostic tests using receiver operating characteristic analysis and information theory
E. Somoza, L. Soutullo-Esperon and D. Mossman (Cincinnati, OH and Madrid, Spain) 153—189
An iterative approach to plan combination in radiotherapy
Y. Censor and S.C. Shwartz (Haifa, Israel) ..... 191—205
Computer simulation of the neural discharge carried by the abducens nerve during eye fixation in the cat
C. Gomez, J.M. Quero and M. Escudero (Seville, Spain) ..... 207—215
Book Review ..... 217—218
Calendar of Events ..... 219—220

Commentary ..... 221—225
Annular SPECT for a 3-dimensional imaging of the brain
Pain treatment by computerized spinal cord stimulation
Update on computer security
J.G. Llaurado (U.S.A.)
Equivalent multi-tissue and thermodynamic decompression algorithms
B.R. Wienke (Los Alamos, NM) ..... 227—245
MacSECPROT: Two programs in basic to evaluate protein secondary structure
A. Luttke (Köln, F.R.G.) ..... 247—255
A 2-year assessment of a microcomputer based local-area network system for managing perinatal medical information
T. Koyanagi, H. Nakahara, K. Hirose, E. Hori and H. Nakano (Fukuoka, Japan) ..... 257—268
Effects of cavities on EEG dipole localization and their relations with surface electrode positions
B. He and T. Musha (Yokohama, Japan) ..... 269—282
Non-invasive tracking of peripheral ventilatory, response to carbon dioxide
M.C.K. Khoo (Los Angeles, CA) ..... 283—295
Calendar of Events ..... 297—298
Subject Index Volume 24 (1989) ..... 299—302
Author Index Volume 24 (1989) ..... 303
Contents Volume 24 (1989) ..... 305—306